

BUFFER SEMAPHORE SYSTEM AND METHOD**ABSTRACT OF THE INVENTION**

5 A system and method are provided for securely buffering
overhead messages in a network-connected integrated circuit. The
method comprises: receiving messages including overhead bytes; collecting
overhead bytes; creating a first overhead message from the collected
overhead bytes; establishing a overhead message semaphore; and, saving
the first overhead message until it is read, in response to the semaphore.
10 Saving the first overhead message until it is read means not overwriting
the first overhead message stored in the buffer until the buffer is read.
Not overwriting the first overhead message stored in the buffer until the
buffer is read includes the substeps of: setting the semaphore to the lock
state; and, in response the semaphore lock state, not writing collected
15 overhead bytes for a second overhead message to the buffer

The method further comprises: reading the first overhead
message in the buffer; collecting new overhead bytes; creating a second
overhead message from the collected new overhead bytes; and, saving the
second overhead message until it is read. Collecting overhead bytes for
20 the second overhead message includes the substeps of: setting the
semaphore to the unlock state following the reading of the first overhead
message; and, collecting a first number of overhead bytes from a second
number of frames.